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European Community: Shipbuilding Industry Struggling To Stay Afloat

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An Intelligence Assessment

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An Intelligence Assessment

This paper was prepared by [] the
Office of European Analysis. Comments and queries
are welcome and may be directed to the Chief,
European Issues Division, EUR, []

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**European Community:
Shipbuilding Industry
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Key Judgments

*Information available
as of 1 May 1985
was used in this report.*

The European Community shipbuilding industry has fallen on hard times. Output and employment are down sharply since 1975, and the Community's share of the world market has shrunk dramatically. Many EC shipyards remain in operation only because of government subsidies. Dwindling order books and the need to improve productivity will, in our view, require further cuts in jobs and capacity.

A sharp reduction in petroleum shipments between 1979 and 1983 along with mounting competition from East Asian shipbuilders account for most of the decline. Tanker capacity in particular has exceeded demand since 1979, while lower labor costs and aggressive sales tactics have favored Japanese and South Korean producers. In particular, South Korean shipbuilding capacity doubled during 1979-84 and is expected to rise by an average annual 10 to 15 percent over the next few years.

The shipbuilding industries in the four major EC countries are trying to cut their losses by consolidating firms to improve productivity. Paris, London, and Rome are heavily involved in reorganizing their industries and are subsidizing firms to minimize employment losses. Bonn prefers to remain on the sidelines and let the firms reorganize themselves.

To remain internationally competitive, we believe the industry will be forced to concentrate on building highly specialized, technically advanced vessels—such as certain naval ships and sophisticated cargo vessels—rather than continue producing the traditional large oil tankers and bulk cargo carriers. In the longer run, East Asian shipyards will almost certainly move into construction of technologically advanced commercial ships and chip away at the EC's share of this market. At present, however, they are likely to continue concentrating on more traditional vessels. Japan already matches the EC in terms of civil technology but is more concerned with the challenge to their market leadership posed by South Korea. Although costs are higher in Europe, the EC expects its technology to partially offset this deficiency and hopes to capture a large enough share of this limited market to make the venture worthwhile. In any case, the commitment of EC governments to provide \$700-800 million a year in subsidies should help ensure that the industry stays afloat, albeit in a scaled-back manner.

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European Community: Shipbuilding Industry Struggling To Stay Afloat

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Tale of Woe

The EC shipbuilding industry has been deteriorating faster than its major competitors since the mid-1970s. Community shipbuilding output plummeted from a peak of 7.8 million gross registered tons (grt)¹ in 1975 to 2 million grt in 1980. Although output improved somewhat in succeeding years, by 1983 production still reached only 2.8 million grt—64 percent below the 1975 level (see figure 1).

With declining output, employment in the industry also has fallen. In 1975, EC employment in shipbuilding stood at more than 200,000. Preliminary figures for 1983 show employment at under 100,000 (see table 1). Britain and West Germany have accounted for the greatest number of layoffs, about 32,000 and 26,000, respectively. The Netherlands has experienced the largest contraction in percentage terms with employment in the industry down 61 percent. Although the absolute numbers of workers unemployed is small relative to the size of the overall EC workforce—about 114 million people in 1983—the crisis is occurring at a time when few alternative employment opportunities exist for former shipbuilding workers and overall unemployment already is at record levels.

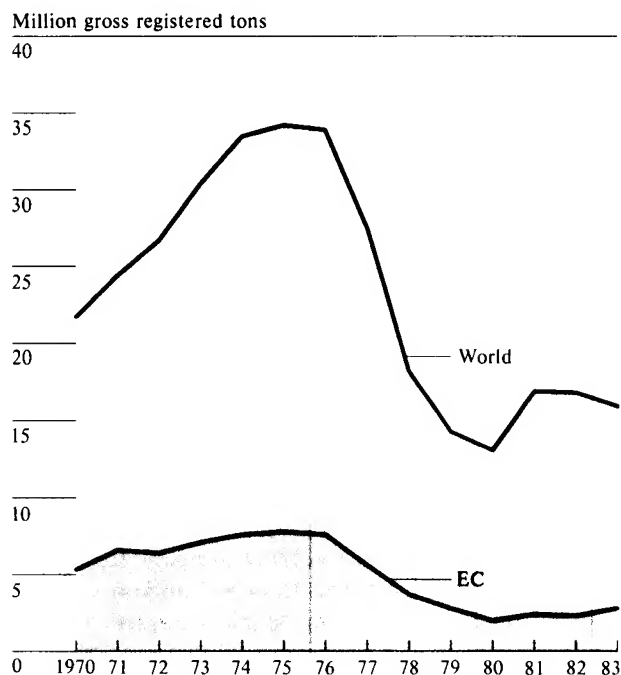
In the Big Four:

- *West German* shipyards saw their order books² shrink from 2.3 million grt in 1970 to roughly 700,000 grt by the end of 1984. Total employment is down 55 percent since 1975, and more jobs are likely to be lost as restructuring continues.
- The *French* shipbuilding industry has shrunk considerably since 1975, with shipbuilding capacity dropping 50 percent and employment falling by roughly the same amount. Orders at the end of 1984 plunged almost 40 percent compared with the previous year.

¹ Gross registered tons is a measurement of a ship's enclosed space, including engine rooms, fuel tanks, holds, and passenger and crew accommodations. One gross register ton is equivalent to nearly 3 cubic meters of space.

² The size of order books can vary widely over the course of a year due to changes in demand and the cancellation of orders.

Figure 1
International: Trends in World
Shipbuilding Output, 1970-83^a



^a Estimated.

- In its first seven years of existence, state-owned *British Shipbuilders* has closed 10 yards, 35 docks, six repair facilities, and four engine plants. British Shipbuilders experienced another dismal year of operation in 1983, losing \$165 million. Since the nationalization of 90 percent of Britain's shipbuilding industry in 1977, over 20,000 jobs have been lost and London has had to provide some \$1.5 billion in subsidies.

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Table 1
European Community: Employment in
Commercial Shipbuilding, Selected Years ^a

Number of workers

	1975	1978	1979	1980	1983 ^b
EC	210,149	154,270	130,859	120,196	98,600
Belgium	6,138	5,140	5,100	5,162	4,400
Denmark	16,630	12,000	9,900	11,400	8,200
France	32,500	25,300	23,000	22,200	16,000
Greece	5,000	NA	NA	NA	3,000
Ireland	869	840	750	750	350
Italy	25,000	20,000	19,000	18,000	14,000
Netherlands	22,662	17,540	14,540	13,100	8,920
United Kingdom	54,550	41,050	31,200	24,800	22,580
West Germany	46,800	32,400	27,369	24,784	21,150

^a Number employed building new ships.^b Estimated.

- *Italian* shipbuilding production is down sharply from the mid-1970s with employment plummeting by nearly 45 percent. Although the financial losses of Fincantieri, the state holding company for the sector, fell in dollar terms from \$67 million in 1982 to \$61 million in 1983, the deficit increased slightly in lira terms as sales nosedived 27 percent. Of the eight firms under Fincantieri's control, only Canteri Navale Riunite, which builds vessels for the Italian and other navies, has managed to break even.

Causes of the Decline

Depressed world market conditions and the worsening competitive position of EC shipbuilders have been the main causes of the industry's decline. In volume terms, annual world seaborne trade fell from a peak of 3,800 million metric tons in 1979 to 3,200 million metric tons in 1983 (see figure 2). Some of this decline reflects the drop in overall world trade caused by the economic recession in the early 1980s. The bulk of the falloff in worldwide seaborne trade, however, stems from the nearly 30-percent reduction in petroleum shipments over the period. The decline in world trade cut the demand for new ships, particularly tankers. Not only could existing ships handle the volume of world trade, but their capacity exceeded demand. Thus, the number of idle vessels grew, further depressing the demand for and price of new ships.

Rising labor costs have compounded the EC shipbuilding industry's problems by reducing its ability to compete. From 1975 to 1980, EC labor costs—wages, social security taxes, and fringe benefits—increased an average of 83 percent in dollar terms, compared with 72 percent for Japan and 67 percent for the United States (see table 2). Moreover, because worker productivity in the EC is significantly less than in Japan, unit labor costs in the Community in 1982, for example, were more than double those of Japan.

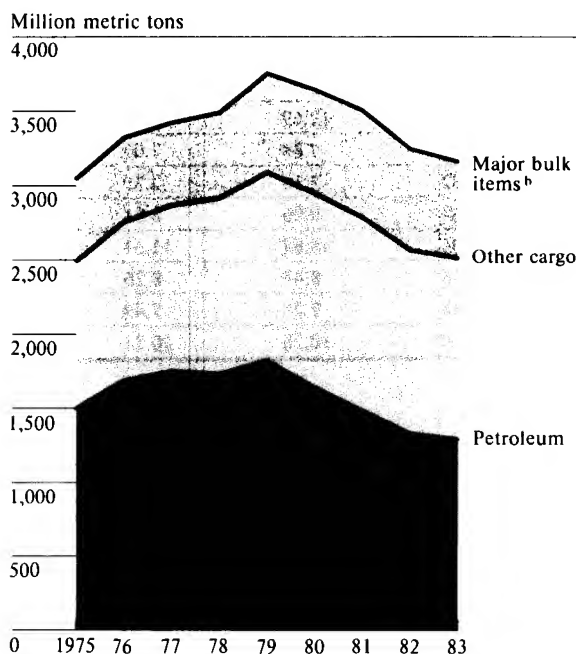
While labor productivity is better in the EC than in South Korea, higher EC wages have wiped out this advantage, causing EC unit labor costs to be nearly three times greater than South Korea's in 1982 (see table 3).

In addition to higher production costs, the EC industry has faced aggressive sales tactics by the Japanese and South Koreans, which have reduced the EC's share of world shipbuilding orders from almost 25 percent in 1970 to less than 8 percent in 1983 (see figure 3). The Japanese consider their shipbuilding industry important to their economy and have undertaken a massive restructuring effort to increase their

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Figure 2
International: World Seaborne
Trade, 1975-83^a



^a Estimated.

^b Major bulk items are iron ore, coal, and grains.

share of the world market. Shipbuilding employment, including related industries, was slashed 33 percent between 1975 and 1981 as Japan moved toward automating the industry. Shipbuilding capacity, down more than 37 percent since 1979, is now more economical and in line with lower world demand. Since 1978, Tokyo has offered subsidies to shipowners who scrapped uneconomic oceangoing vessels in favor of new ones. In the early 1980s, Tokyo also provided special depreciation allowances to shipping companies. Moreover, the Japanese Export-Import Bank has made export credits available to cover 30 to 40 percent of a ship's price. These measures helped Japan boost its share of world shipbuilding output from 34 percent to 50 percent during the 1978-81 period.

The EC shipbuilding industry also has been particularly hard hit by increased competition from South Korea. In 1974, the South Korean shipbuilding industry ranked 70th in the world; today it is second only to Japan. In 1983, South Korea received 19 percent of world shipbuilding orders. South Korean shipbuilding capacity doubled during 1979-84 and is expected to increase at an average annual rate of between 10 and 15 percent over the next few years. Much of South Korea's success comes from the efficiency of its modern facilities, cheap domestically produced steel, and its low-wage, highly disciplined labor force. The South Koreans have also been able to find openings in the market and exploit them. Unlike the Japanese who tend to mass-produce ships, the South Koreans readily build ships to customers' specifications.

Efforts To Restructure the Industry

The shipbuilding industries in the four major EC countries are attempting to improve their international competitiveness by improving efficiency through cutting capacity and consolidating firms. Paris, London, and Rome are heavily involved in reorganizing their shipbuilding industries and are providing subsidies to help the restructuring process. No Community-wide shipbuilding policy exists, and the EC has limited enforcement powers to monitor national aids to the industry in an effort to ensure that EC rules are not violated (see table 4). Some measures such as subsidies given to national shipowners for ships ordered in national yards and compensations for contracts at below cost actually violate the Rome Treaty, which prohibits aid that distorts competition and adversely affects trade between member states. Apart from providing subsidies from EC funds, the Community can do little to help troubled shipyards.

Outside the Community the OECD set up a Working Party in 1963 to examine the shipbuilding industry's problems. The first action of the Working Party was to achieve some control over export credit arrangements. Presently, the OECD permits interest rates of up to 8 percent, a repayment period of eight and a half years, and a maximum loan of 80 percent of the

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US \$

Selected Countries: Hourly Compensation of Shipbuilding Production Workers, Selected Years ^a

	1975	1978	1979	1980	1981	1982
United States	6.89	9.03	10.06	11.54	12.69	13.78
Japan	3.93	6.70	6.46	6.77	7.84	7.09
South Korea	0.60	1.83	1.87	1.82	2.16	2.36
France	5.17	8.70	9.20	10.41	9.06	8.81
West Germany	7.09	11.16	12.84	14.01	11.67	11.61
Italy	5.75	6.61	7.80	9.16	8.47	8.26
United Kingdom	3.67	4.60	5.74	7.38	7.21	7.49
Netherlands	7.07	10.50	11.89	12.56	10.28	10.21

^a Hourly compensation is defined as wages, employer social security contributions, and fringe benefits.

Source: US Department of Labor, Bureau of Labor Statistics.

Table 3**Selected Countries: Productivity and Unit Labor Costs in the Commercial Shipbuilding Industry, 1982**

	Annual Output Per Worker (cgrrt) ^a	Unit Labor Costs ^b (US \$)
Netherlands	35.3	490
West Germany	30.8	636
France	25.1	669
Belgium	19.4	954
United Kingdom	16.4	854
Italy	16.1	831
Japan	43.3	330
South Korea	15.1	273

^a Compensated gross registered tons (cgrrt), which is the gross tonnage of a ship multiplied by a compensation coefficient that is based on the type of ship and the amount of work typically involved in its construction.

^b Labor cost per cgrrt.

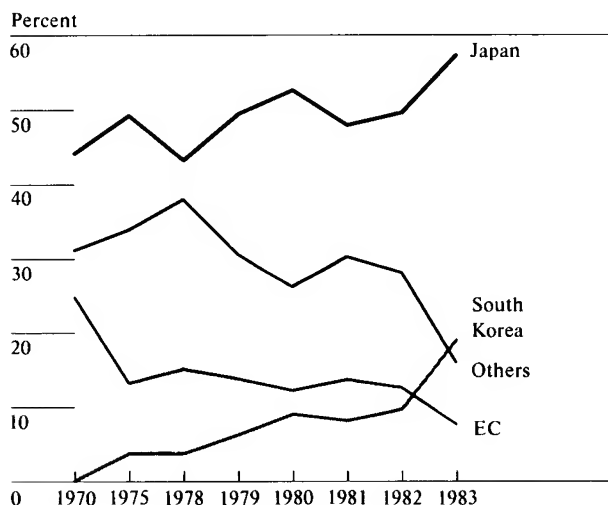
countries have increasingly allowed participating governments to introduce new measures and increase existing aid in particular cases for "unforeseen and imperative reasons." Some cheating has also occurred, and member countries of the Working Party have decided that trying to reduce subsidies is not practical given the industry's current state.

Bonn is not seeking direct participation in the restructuring of the shipbuilding industry because the Kohl government wants to limit state subsidies to shipyards, maintaining instead that it will fight for the industry by pressing competitor countries to reduce their subsidies. AG Weser, the Krupp-owned shipyard in Bremen, for instance, was forced to close last year—and 2,250 workers lost their jobs—after it failed to convince Bonn to help cover losses and advance subsidies on future ship construction. Finance Minister Gerhard Stoltenberg resisted industry pressure for more government subsidies and last year limited Bonn's support to about \$80 million, roughly the same amount as in 1983.

ship's purchase price. The Working Party also established guidelines for the reduction of subsidies to shipbuilding. Nevertheless, in recent years, member

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Figure 3
International: Share of Shipbuilding
Orders, Selected Years



Even without new subsidies, West German order books at the end of 1984 stood at 707,000 grt, up 22 percent from the same period a year earlier. West German shipyards, in the meantime, are consolidating and becoming more specialized. In Bremerhaven, Bremer Vulkan, one of the region's largest employers, has already merged with the Hapag-Lloyd repair yard. It reported a net profit of nearly \$800,000 in 1983, although this was due to a \$9.3 million cash injection provided by Thyssen and the Bremen state government earlier in the year. Without these funds, Bremer Vulkan would have gone bankrupt. Bremer Vulkan will concentrate on naval and merchant shipbuilding while repair work will be funneled into Hapag-Lloyd, which is now known as Lloyd-Werft. The company plans to invest \$29 million at both yards and rationalize facilities at Bremer Vulkan mainly to increase productivity. Howaldts-werke Deutsche Werft (HDW), which is 75-percent owned by the state-controlled steel firm Salzgitter, is planning to cut employment by 4,000 at its shipyards in Kiel and Hamburg. HDW will also center its merchant shipbuilding effort in Kiel while focusing on naval vessels in Hamburg.

Paris wants to improve the competitiveness of the French shipbuilding industry, but its first goal is to prevent the industry from shrinking. To keep all five of France's major shipyards open, the government pumped in between \$180 million and \$290 million each year from 1978 to 1983. The government also orchestrated a major reorganization of the industry in 1982, creating Chantiers du Nord et de la Mediterranee (CNM) and allowing Chantiers Dubigeon to be taken over by Chantiers de l'Atlantique, a subsidiary of Alsthom Atlantique, a wholly government-owned industrial conglomerate.

Despite Paris's efforts, however, little was accomplished and many of the industry's problems remain. French shipyards ended 1984 with orders amounting to 313,000 grt compared with 515,000 grt the previous year, a decline of almost 40 percent. Losses of almost \$97 million in 1983 by Chantiers du Nord et de la Mediterranee were exceeded in the EC only by British Shipbuilders. The government now wants to ensure that all five French shipyards remain open and no new layoffs occur. Paris particularly wants to keep from reducing the work force because of the unemployment situation and the possibility of social disorder. Efforts to lay off workers at steel and automobile plants sparked violent protests last year. Paris cut planned budget outlays in other sectors to come up with another \$450 million in shipbuilding subsidies in 1984. The move was made after Guy Lengagne, French Secretary of State for the Sea, determined that the initial allocation of \$200 million was inadequate to subsidize the building of five ships promised to CNM and Chantiers de l'Atlantique. Paris now is also tying subsidies to cutbacks in capacity and encouraging diversification from shipbuilding into ship repair, offshore equipment, and conversions.

The EC Commission early this year blocked French Government subsidies to CNM and Alsthom-Atlantique shipyards, putting into question Paris's restructuring program. The Commission complaint covers about \$345 million—at 1984 exchange rates—in subsidies to CNM and \$35 million in grants to Alsthom. The aids are supposed to be tied to reductions in

Table 4
Western Europe: Aids to the Shipbuilding Industry

	Direct Production Subsidies	Credit Assistance to Shipowners	Preferential Tax Treatment
West Germany	Central government puts up 12.5 percent of ship's cost, provided the buyer puts up 30 percent and keeps vessel under West German flag for at least eight years. State government subsidies amount to an additional 4 percent of ship's cost.	Grants plus interest subsidies make the minimum interest rate of 4 percent on loans. Subsidies provided to LDCs purchasing ships built in West Germany.	Imported materials used in ship construction are duty free. Ships are exempt from value-added tax (VAT).
France	Fifteen to 30 percent of contract price depending on size of yard and type of vessel.	Interest rate subsidies at OECD export rates.	Imported materials used in ship construction are duty free. Ships are exempt from VAT.
United Kingdom	Up to 30 percent of contract price plus any losses of British Shipbuilders.	Loans at OECD export terms plus interest moratorium up to three years.	Imported materials used in ship construction are duty free. 2-percent relief for indirect taxes. Ships are exempt from VAT.
Italy	Up to 30 percent of contract price.	Seventy percent of contract price loaned by the government. Rome also pays half of interest costs.	Imported materials used in ship construction are duty free. Ships are exempt from VAT.
Denmark	None	Loans amounting to 80 percent of contract price repayable over 14 years at 8-percent interest, four-year moratorium.	Imported materials used in ship construction are duty free. Ships are exempt from VAT.
Netherlands	5.5 percent of contract price. Funding up to 75 percent of losses if connected with restructuring.	Interest subsidies to a maximum of 2 percentage points below OECD export credit rate for ships.	Imported materials used in ship construction are duty free. Ships are exempt from VAT.
Belgium	None	Interest rate subsidies are available to shipowners who have vessels built in Belgium.	Imported materials used in ship construction are duty free. Ships are exempt from VAT.
Spain	Up to 9.5 percent of contract price.	Loans up to 80 percent of contract price at 8-percent interest with a debt service moratorium lasting up to two years.	5.5-percent customs rebate for imported materials used on domestic ships; 12.5-percent indirect tax rebate prior to VAT.

capacity, but the Commission believes no such link exists. The Commission is proceeding cautiously and expects several months to pass before reaching a resolution. If the investigation reveals that the aids were improperly granted, the Commission has the authority to demand the recovery of funds already distributed, thereby weakening the French restructuring program and hindering Paris's efforts to keep all of the country's shipyards open.

London is pushing state-owned British Shipbuilders to reduce its losses and salvage the jobs left in the industry by selling off sections—such as the Scott Lithgow shipyard last year—to private interests. The sale of Scott Lithgow kept the yard open despite the lack of orders—the government had intended to close

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it; employment will be trimmed, however, from 4,500 to about 2,000 workers. London is also reorganizing British Shipbuilders, reducing the number of divisions from five to two, with one covering the construction of merchant ships and the other, warships. British Shipbuilders is also shifting emphasis from building large merchant ships to smaller ones such as ferries and offshore service ships. British orders were 46 percent lower at the end of last year, and London was to provide British Shipbuilders more than \$300 million for the 12-month period ending this past March to cover operating losses and modernization programs.

Historically, British Shipbuilders requires as much as 50 percent more man-hours than their West European counterparts to perform some shipbuilding tasks. The company is now claiming its productivity ranks ahead of all EC shipbuilding countries except the Netherlands.

Rome is providing roughly \$1 billion in aid for the three-year period 1984-86 to help cover losses and modernize shipyards. Massive aid will be required, as Italy suffered the sharpest falloff in orders among EC countries, down 65 percent to only 111,000 grt at the end of 1984. Included in the aid program is the reorganization of Fincantieri, the holding company for the state-owned industry. Fincantieri formerly controlled eight separate firms, of which the largest were Italcantieri and Cantieri Navale Riunite. Fincantieri's eight firms have now been merged into one with four operational divisions:

- Offshore and merchant ship construction.
- Repair and rebuilding.
- Engine construction.
- Naval ship construction.

Capacity cutbacks will lead to a loss of 5,000 jobs and the closing of at least one shipyard by 1986—probably Italcantieri's yard in Genoa.

The smaller EC countries, hit equally hard by the industry's worldwide recession, are also resorting to cutbacks in employment and capacity to improve efficiency. The Danish shipbuilding industry is unique among EC nations in that it is privately owned. Weak demand forced the industry to slash its labor force by 28 percent in 1983 as compared to the previous year.

Although orders totaling slightly more than 1 million grt at the end of 1984 were the highest in the Community, more layoffs may be forthcoming unless the trend continues.

Following the collapse of the shipbuilding conglomerate Rijn-Schelde-Verlome (RSV) last year, the Dutch shipbuilding industry is slowly putting the pieces back together. RSV's failure has left The Hague more cautious about bailing out troubled shipyards. Between 1976 and 1984, RSV lost more than \$850 million, surviving only through state subsidies until the government decided to stop supporting the firm. Orders are on the upswing, ending in 1984 at 245,000 grt, and the industry's productivity now ranks among the highest in Western Europe. The Verlome yard in Ireland was a subsidiary of RSV and is the country's only major shipyard. The yard is not commercially viable and is heavily dependent on the Irish Government—which now owns the yard—for orders.

Belgian order books at the end of 1984 amounted to 205,000 grt, down 12 percent from the end of 1983. Industry employment has fallen 28 percent since 1975, and the number of major shipyards has been reduced to two. The industry's outlook remains bleak due to production costs that rank among the highest in Western Europe. Despite possessing one of the world's largest merchant fleets, Greece's shipbuilding industry is of little international importance. Output reached only 37,000 grt in 1983 and may slide further if Hellenic Shipyards—one of the nation's largest industrial employers—goes ahead with its plans to close its facilities at Skaramangas. Order books are thin, and the lack of government subsidies for building new ships provides little incentive for new construction. With demand for new vessels falling off, Greek shipyards are increasingly relying on repair contracts to continue operating.

Outlook

Despite some improvement in shipping markets because of the world economic upturn, we believe the EC shipbuilding industry will require additional cutbacks. More than enough ships already exist worldwide to handle the expected increase in world trade

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over the next two years. In our view, any pickup in ship orders after that will be met by continuing aggressive sales tactics by Japan and South Korea and by new countries entering the market such as Taiwan and China. Labor costs in all of these countries are lower than in any EC country, and West European governments—most of whom are still trying to cut deficits—will try to resist offsetting this cost disadvantage by increasing subsidies. As a result, EC order books will likely decline over time, leading to a further erosion of the EC's share of the world market. []

While the EC shipbuilding industry will almost certainly continue to shrink, it is not likely to disappear altogether. The Community is the world's largest single trading power with 90 percent of its trade outside the Community seaborne. Because of this dependence and the unemployment situation in the Community, most EC governments will continue to provide some financial support to the more viable portions of the industry. As a result, we believe the EC shipbuilding industry will increasingly concentrate on defense-related vessels and possibly on the construction of specialized high-technology ships built to order. Building ships with a high content of advanced technology is one of the few areas in the industry where the EC continues to hold an advantage over the South Koreans—although even here the gap is narrowing fast. []

While some EC countries are increasingly looking toward building naval vessels as the salvation of their shipbuilding industry, the move is not because of any specific NATO policy. Ships of NATO navies are purchased from yards within the Alliance for obvious security reasons rather than because of any NATO directive. Consequently, EC yards must boost sales of ships to navies outside the Alliance, with those belonging to LDCs the most likely candidates. In general, it is impractical to produce both commercial and naval vessels in the same shipyard. Consequently, any decision to step up production of naval ships would involve reducing merchant capacity and the presumption of some reasonable amount of export demand for naval ships. []

Given the bleak prospects for the industry, EC pressure on Japan and South Korea to restrict output will

continue. The Community remains critical of Japanese Government restrictions on output—aimed, in part, at limiting capacity increases—and wants even tighter controls. While Tokyo is finding it necessary to curb output for its own restructuring effort, Seoul has had less incentive to do so. Cuts by South Korea in its rapidly growing shipbuilding industry would do little for the uncompetitive EC industry while indirectly helping South Korea's other competitors move in on at least part of the market they vacated.

Moreover, limitations could backfire on the Community, particularly if the Japanese began penetrating specialized markets for highly sophisticated ships and floating structures—the same type vessels EC countries are relying on to save the industry []

The Community may also look to other means to protect the industry. Because the market for ships does not readily lend itself to classical forms of protectionism such as tariffs or import quotas, financial incentives, primarily in the form of subsidies, will continue as the most prevalent means of protectionism for the EC shipbuilding industry. Since 1975, EC governments have provided \$700-800 million annually in subsidies to compensate for the price differential between EC and East Asian shipyards and to maintain jobs. The Community or individual member governments also may move to require EC shipowners to order new vessels only from shipyards within the Community—or at least require EC exporters to ship goods only in EC-built vessels. []

Should the EC shipbuilding industry go under, the United States might gain a few orders for naval vessels with a high advanced-technology content, an area in which the United States still holds a comparative advantage over more efficient shipbuilding countries such as South Korea. As a result, US exports may be limited only to other NATO Allies with US legal constraints on the transfer of sensitive technology possibly affecting these sales. Commercial orders lost by the EC would be quickly taken by Japan, South Korea, Taiwan, and other emerging LDC producers. []

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